

MORRISON & FOERSTER LLP
 MICHAEL A. JACOBS (Bar No. 111664)
 mjacobs@mofo.com
 MARC DAVID PETERS (Bar No. 211725)
 mdpeters@mofo.com
 DANIEL P. MUINO (Bar No. 209624)
 dmuino@mofo.com
 755 Page Mill Road, Palo Alto, CA 94304-1018
 Telephone: (650) 813-5600 / Facsimile: (650) 494-0792

BOIES, SCHILLER & FLEXNER LLP
 DAVID BOIES (Admitted *Pro Hac Vice*)
 dboies@bsfllp.com
 333 Main Street, Armonk, NY 10504
 Telephone: (914) 749-8200 / Facsimile: (914) 749-8300
 STEVEN C. HOLTZMAN (Bar No. 144177)
 sholtzman@bsfllp.com
 1999 Harrison St., Suite 900, Oakland, CA 94612
 Telephone: (510) 874-1000 / Facsimile: (510) 874-1460
 ALANNA RUTHERFORD
 575 Lexington Avenue, 7th Floor, New York, NY 10022
 Telephone: (212) 446-2300 / Facsimile: (212) 446-2350 (fax)

ORACLE CORPORATION
 DORIAN DALEY (Bar No. 129049)
 dorian.daley@oracle.com
 DEBORAH K. MILLER (Bar No. 95527)
 deborah.miller@oracle.com
 MATTHEW M. SARBORARIA (Bar No. 211600)
 matthew.sarboraria@oracle.com
 500 Oracle Parkway, Redwood City, CA 94065
 Telephone: (650) 506-5200 / Facsimile: (650) 506-7114

Attorneys for Plaintiff
 ORACLE AMERICA, INC.

**UNITED STATES DISTRICT COURT
 NORTHERN DISTRICT OF CALIFORNIA
 SAN FRANCISCO DIVISION**

ORACLE AMERICA, INC.

Plaintiff,

v.

GOOGLE, INC.

Defendant.

Case No. CV 10-03561 WHA

**ORACLE AMERICA, INC.'S RESPONSE
 TO COURT'S DECEMBER 27, 2011,
 REQUEST FOR FURTHER BRIEFING
 ON DAMAGES (DKT. NO. 657)**

Dept.: Courtroom 8, 19th Floor
 Judge: Honorable William H. Alsup

Oracle America submits this response to the Court's December 27, 2011 request for further briefing (the "Request"), seeking comment on questions regarding an alternative approach (the "Alternate Approach") to reasonable royalty damages in this case.

I. INTRODUCTION

For the reasons set forth in its previous briefing and during oral argument on December 21, Oracle believes that Prof. Cockburn's existing analysis is a sound approach to calculating damages in this case. The Alternate Approach also could be both feasible and appropriate under applicable appellate law, subject to at least one important caveat. Oracle has already measured the contribution of the patents and copyrights in suit to specific attributes of Android, such as improved application launch speed, enlarged memory, and an increased number of available applications. Oracle has also measured the incremental effect on mobile advertising revenue as a result of those specific enhancements. Using these *ex post* measurements to inform the *ex ante* hypothetical negotiation is supported by substantial appellate law under the circumstances presented here.

The one aspect of the Alternate Approach with which Oracle disagrees is Step 3, which would require that Oracle to further apportion the value of the relevant features among all of the know-how inputs that enabled them. Such a requirement is unnecessary as a factual matter because Prof. Cockburn has already isolated the specific contributions of the patents and copyrights in suit to Android, and has already analyzed the absence of viable non-infringing alternatives. Imposing such a requirement would also be legally improper because the Federal Circuit has never required a plaintiff to measure the value of the non-infringing elements of an accused product or feature. And such a requirement would be unworkable because of the complementarity problems that both parties' economic experts have emphasized.

With the exception of the additional apportionment in Step 3, the Alternate Approach would provide an economically sound method of informing the amount of reasonable royalty damages. Under this approach, Oracle need not rely on the 2006 negotiations as the basis for its reasonable royalty claims. However, the 2006 negotiations may remain relevant, not only for potential defensive use by Google, but by either party to inform the nature and amount of the overall value at stake in the hypothetical negotiation.

II. RESPONSE TO ALTERNATIVE APPROACH AND QUESTIONS

STEP 1 – Measure the value to Android of specific features enabled by the patents and copyrights in suit, as of 2008-2011.

Oracle agrees that this first step is an appropriate element of the reasonable royalty calculation. *See Georgia-Pacific Co. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970) (Factors 9, 11, 13). As Google’s expert, Dr. Leonard, wrote last month: “Under a sound economic approach, the dollar amount of the reasonable royalty award should reflect the incremental dollar value of the patented technology to the defendant as compared to the next best alternative.” (Bailey, Leonard & Lopez, “Apportionment Treats The Symptom, Not The Disease,” Law360, Dec. 9, 2011, <http://www.law360.com/ip/articles/289544> (“Leonard Law 360 Article”); *see also* R. Higgins & D. Martin, “The Economics Of The Entire Market Value Rule: As Applied to Complex Products” at p. 5 (2011), <http://ssrn.com/abstract=1961276> (“An efficient royalty is equal to the marginal contribution of specific IP to the net value of the product or component whose creation the IP enables.”).)

As the Request notes, Oracle has measured the effect of the patents and copyrights in suit on various attributes of Android, such as application launch time. Although the Request states that Oracle has measured the value of certain Android features, it would be more accurate to say that Oracle has measured the *incremental* performance benefit from Google’s use of the patents and copyrights in suit. For example, Oracle did not simply measure how *speed* increases Google’s market share in the abstract, but instead measured the *delta* in market share attributable to the greater speed and memory provided by the patents compared to the characteristics Android would have had in the absence of the patented functionality, and the *delta* in market share attributable to the larger number of applications enabled by the copyrights.¹ Those deltas would have reduced demand for Android and thereby shifted usage to other smartphone platforms, which generate some – but not as much – advertising revenue for Google. Thus, in carrying out his apportionment analysis, Prof. Cockburn measured only the incremental readily quantifiable revenue associated with the patents and copyrights in suit.

¹ As discussed below with regard to Step 3, because Prof. Cockburn’s analysis is supported by, among other things, evidence demonstrating the unavailability of non-infringing alternatives, his evaluation of the incremental benefit of the patents and copyrights in suit specifically takes into account the value of the next-best alternative (i.e., relying on other mobile platforms for mobile advertising revenue). *See* Cockburn Report at ¶¶ 3, 16, 244, 387–416.

STEP 2 – Use data from 2008 to 2011 as an indicator of anticipated value in 2006.

The Alternate Approach notes that the evidence of actual value from 2008 to 2011 is an “arguable indicator of the value Google would have placed on that feature in 2006.” Oracle agrees. The Court asks “to what extent are hypothetical negotiators in 2006 allowed to peek into the future to see how events unfolded through 2011?” The Federal Circuit has repeatedly held that the jury may in appropriate circumstances consider evidence that came into existence only after the actual negotiation. *See, e.g., Lucent Techs, Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1333–34 (Fed. Cir. 2009) (“Consideration of evidence of usage after infringement started can, under appropriate circumstances, be helpful to the jury and the court in assessing whether a royalty is reasonable. Usage (or similar) data may provide information that the parties would frequently have estimated during the negotiation.”); *Sinclair Refining Co. v. Jenkins Petroleum Process Co.*, 289 U.S. 689, 698 (1933) (factual developments occurring after the date of the hypothetical negotiation are a “book of wisdom that courts may not neglect”). In addition, Oracle and Google agree the jury should be instructed that:

In this trial, you have heard evidence of things that happened after the alleged infringement first began, including evidence of sales of devices incorporating Android and profits made by Google related to Android. That evidence can be considered only to the extent that it *sheds light on what the parties would have anticipated at the time of the hypothetical negotiation*. You may not limit or increase the royalty based on the actual profits Google made.

(Dkt. No. 539 at 160) (Disputed Jury Instruction No. 56) (emphasis added).

Evidence of the value consumers place on the patented functionality and copyrighted expression as of 2011 corroborates what Google itself anticipated in 2006, as shown by the contemporaneous evidence discussed by Prof. Cockburn. *See* Cockburn Report, ¶¶ 252–63. This is when “peeking into the future” is strongly supported by appellate law. The parties could have quantified the anticipated importance of speed, memory, security, and availability of applications, relying on data similar to the kinds of data relied on by Oracle’s experts.

STEP 3 – Apportion the value of the relevant features among all of the know-how inputs that enabled it.

The Alternate Approach appears to contemplate that Oracle should be required to go beyond what Prof. Cockburn has already done and measure the relative contribution of all of the other “know-

how inputs” that enable a particular feature, in addition to the benefit provided by the patents and copyrights in suit. In the Request, the Court asks “[i]s it correct that the burden would be on Oracle to apportion the value of a feature as between the claimed invention versus all other know-how contributions to that feature?” As discussed above, Prof. Cockburn based his valuation of the patents and copyrights in suit on the understanding that the value to be measured is the delta between an Android *with* and *without* the patents and copyrights, by measuring, for example, exactly how many seconds faster an application opens with the patent enabled than without. If the Court is asking whether Oracle should be required to ***further apportion that delta*** among different inputs, Oracle respectfully submits that such a requirement is unnecessary, contrary to law, and unworkable.

Requiring allocation of features among all “know-how inputs” is unnecessary in this case because Oracle has ***already*** isolated the incremental benefit of the patents and copyrights in suit to the relevant features, and measured the increased advertising dollars that Google has generated as a result. Based on an extensive array of documentary evidence, admissions, and technical analysis, Prof. Cockburn has opined that there are no adequate non-infringing alternatives. Indeed, Google has essentially conceded that there were no non-infringing alternatives to these patents and copyrights other than to abandon Java altogether. *See, e.g.*, Dec. 21, 2011 Hearing Tr. at 56:21–57:5 (“[Mr. Purcell:] The main [noninfringing alternative] would be just not using the Java programming language and a Java virtual machine or a Dalvik virtual machine, I should say, at all; programming Android from the get-go in another programming language, such as C, C++, Objective C, the language that the iPhone is programmed in.”)²; Opening Expert Report of Owen Astrachan at ¶130 (“Once Google decided to provide the ability for developers to write applications using the Java programming language, compatibility and interoperability with the existing body of software, tools, and knowledge about the

² Abandoning Java was also not a viable option. Contrary to Google’s representation at the hearing (*see id.* at 57:6–58:6), the 2010 Lindholm e-mail is far from the only business document that contradicts counsel’s (and Google’s damages experts’) insistence that Google at most had “a slight preference for Java” at the time the infringement began. As Prof. Cockburn has observed, Google’s documents in 2005 and 2006 are replete with references to the “critical” need for Java and a license to Sun’s intellectual property, and to the fact – as Andy Rubin explained to Google co-founder Larry Page in October 2005 – that “the alternatives are sub-optimal” such that Google decided to “[d]o Java anyway and defend our decision, perhaps making enemies along the way”. *See* Cockburn Report at ¶¶ 406–16, 447–51.

1 Java APIs was an external factor constraining Android's options. This essentially required Google to
 2 include the APIs at issue.") Oracle's engineers have conducted tests using industry benchmarks and
 3 rebuilt Android phones to measure specific effects, on speed and memory, of the patents-in-suit alone.
 4 See Cockburn Report ¶¶ 252–59, 264–67; Kemerer Decl.; Birger Summary. Through econometric
 5 analyses of smartphone purchase data and conjoint surveys, Profs. Cockburn and Shugan determined
 6 how many Android users would choose a non-Android phone if the incremental benefit of those
 7 particular patents were lost, and the phone's performance diminished accordingly. See Cockburn
 8 Report ¶¶ 268–81. Prof. Cockburn's conclusion is supported by both the affirmative conclusions of
 9 Oracle's technical experts and by *Google's* own experts' conclusions. Google's technical and damages
 10 experts largely assert that the available alternatives are using another programming language, removing
 11 the virtual machine, or removing the patented functionality altogether, not that Google had some
 12 specific workaround to provide the same functionality. Accordingly, the value of each feature is
 13 entirely the value of the patents and copyrights. No further apportionment of the features at issue to
 14 "other know-how contributions" is necessary or appropriate.

15 Even if some further allocation were needed (which it is not) to arrive at a value of the patents
 16 and copyrights in suit to Android, it would be unprecedented to require Oracle to arrive at that
 17 contribution by valuing the contribution of other know-how inputs. The Federal Circuit has never
 18 required a plaintiff to measure the value of the non-infringing elements of an accused product or
 19 feature. To the contrary, in *Finjan*, the court held that a jury could appropriately find that the infringed
 20 patents contributed a "substantial fraction" of the value of the accused product, even though there was
 21 neither evidence nor expert testimony concerning the value of the other know-how inputs that made the
 22 accused product useful and valuable to consumers. *Finjan Inc. v. Secure Computing Corp.*, 626 F.3d
 23 1197, 1211 (Fed. Cir. 2010). Other cases are in accord, and the Federal Circuit has, including recently,
 24 upheld damages on this basis, including under the entire market value rule. *Bose Corp. v. JBL, Inc.*,
 25 274 F.3d 1354, 1361 (Fed. Cir. 2001) (damages based on the value of loudspeaker systems that include
 26 accused ports allowable where patent was, among other benefits, integral to performance); *Funai Elec.*
 27 *Co., Ltd. v. Daewoo Elecs. Corp.*, 616 F.3d 1357, 1375–76 (Fed. Cir. 2010) (damages award upheld
 28 where there was "general industry demand for smaller, cheaper, faster, and more reliable VCRs, and

Funai presented evidence that the patented technology furthers these goals”). The apportionment analysis that Prof. Cockburn undertook to value the incremental contribution of the patented technology to Android’s market share is precisely in line with, and in some respects more rigorous than, existing law.

Requiring allocation of the relative contributions of all the various “know-how inputs” that might be viewed as enabling a particular feature would also be unworkable. In 2007, Congress specifically considered an amendment to the patent laws that would have required essentially what the Alternate Approach proposes here, namely that, “[t]he court shall exclude from the analysis the economic value properly attributable to the prior art, and other features or improvements, whether or not themselves patented, that contribute economic value to the infringing product or process.” Patent Reform Acts of 2007, 110 H.R. 1908, section 5(a)(2); 110 S. 1145, section 5(a)(2). In response, then-Chief Judge Michel of the Federal Circuit wrote to Senators Leahy and Hatch that he was “unaware of any convincing demonstration of the need” for such a requirement, and that it was “a massive undertaking for which courts are ill-equipped” which would cause courts to “be inundated with massive amounts of data, requiring extra weeks of trial in nearly every case.” (Letter from Chief Judge Paul Michel, May 3, 2007, available at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_senate_hearings&docid=f:37760.pdf, at p. 277–78.) The amendment did not pass the Senate.³

STEP 4 – Hypothetical negotiation in 2006 between Sun and Google in which “[o]nly the expected percentage contribution of the claimed invention to the overall expected value would be on the negotiating table.”

Oracle agrees that the 2006 hypothetical negotiation can be viewed as a negotiation over the contribution of the claimed inventions to the value expected by the parties. Oracle also agrees that the

³ It is well-settled among experts in the field, including Google’s expert here, that there is no sensible way to allocate value among the numerous, often synergistic technical components of a product, device, or feature. *See, e.g.*, Leonard Law 360 Article (“When the combined use of two or more assets is worth more than their individual use, there is no unique way to apportion the overall value of the product among the assets. Unless a particular apportionment scheme was specified by legislation, substantial legal ambiguity would be created, and courts, juries, and parties would bear a heavy litigation burden. Moreover, any mechanical rule to apportion the synergies among the various assets needed to create the synergies would be arbitrary.”).

hypothetical negotiation would concern the “*overall* expected value.” Limiting the negotiation to *only* anticipated incremental gains to Google in the form of near-term mobile advertising revenues, however, would substantially understate the value on the table. Google and Sun both expected, and expected to share, substantial strategic benefits from the success of a compatible Android.

As demonstrated by Google’s contemporaneous documents, Google expected to obtain important strategic benefits from a successful Android platform that was fast, stable, and attractive to application developers. *See* Cockburn Report at ¶¶ 252–63; 343–86 (reviewing contemporaneous evidence). Those other expected benefits included protecting Google’s non-Android mobile business (from which Google earns billions) and gaining access to new markets enabled by Android (e.g., links between Android and Google’s “Google+” social network service, and Google’s music and digital content services). Google is now seeking to protect that immense strategic value through steps such as its \$12 billion acquisition of Motorola Mobility, which Google’s CEO has specifically described as designed to protect Android. Similarly, in the 2006 negotiations, both Sun and Google expected that Sun would receive a portion of the strategic value of a compatible Android by licensing commercial implementations of the platform and providing related services, which Sun called Project Armstrong. Cockburn Report ¶¶ 192, 200, 231, 288, 291, 296–301. Sun estimated that the revenues for Project Armstrong would exceed \$600 million in the first three years alone, far in excess of any measure of the \$100 million “starting point” license fee. *Id.* ¶ 298.

The value of these strategic benefits must also be accounted for in the reasonable royalty, subject to the apportionment analysis in Step 1. As the Federal Circuit has held, Oracle may seek a reasonable royalty based on both Google’s and Sun’s expected business advantage from using the patents in suit. *See Powell v. Home Depot U.S.A., Inc.*, --- F.3d ---, 2011 WL 5519820, at *11–12 (Fed. Cir. Nov. 14, 2011) (“It is settled law that an infringer’s net profit margin is not the ceiling by which a reasonable royalty is capped.”) (emphasis removed); *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1554–55 (Fed. Cir. 1995) (en banc) (affirming royalty based on patentee’s anticipated exploitation of patent rather than infringer’s expected gains); *Monsanto Co. v. Ralph*, 382 F.3d 1374, 1384 (Fed. Cir. 2004) (“the law does not require that an infringer be permitted to make a profit”). Nor are damages capped at the *patentee’s* expected profits. *Powell*, 2011 WL 5519820, at *11–12 (Fed.

1 Cir. Nov. 11, 2011) (rejecting argument that a patentee's damages should be capped at his expected
 2 profits from selling the patented product to the infringer). Moreover, a reasonable royalty must factor
 3 in strategic considerations that would have been important to the parties. *See Monsanto Co. v.*
 4 *McFarling*, 488 F.3d 973, 979–80 (Fed. Cir. 2007).⁴

5 If the Alternate Approach were to consider only Google's anticipated advertising revenue gains,
 6 while disregarding all other strategic benefits to Google and making no provision for Sun's expressed
 7 interest in licensing its intellectual property only on terms that would allow it to earn hundreds of
 8 millions of dollars by sharing in the success and proliferation of a compatible Android, it would
 9 significantly understate the appropriate measure of Oracle's damages. This would be inconsistent with
 10 "Congress' overriding purpose of affording patent owners complete compensation." *See General*
 11 *Motors Corp. v. Devex. Corp.*, 461 U.S. 648, 655 (1983).

12 **STEP 5 – Limit the relevance of Sun's \$100 million offer in 2006 to Google's defensive argument**
 13 **that it is a ceiling on the reasonable royalty; Google alone bears the burden of apportioning if it**
 14 **chooses to make that argument.**

15 The Court asks: "Is it correct that although Google might raise the \$100 million offer by way of
 16 defense, Oracle would have no duty in its case in chief, if it used the above approach to allocate the
 17 \$100 million as between the claimed invention versus the many other thousands of items in the 2006
 18 package?" Oracle agrees that under the Alternate Approach, it would not need to rely on or allocate the
 19 2006 starting point license.

20 Oracle does not understand the Alternate Approach to preclude Oracle from referring to the
 21 2006 negotiations in its offensive case, but would object if it did. Limiting evaluation of the 2006 offer
 22 to defensive use in which the \$100 million offer is merely apportioned *down* – failing to take into
 23 account that the purpose of the offer was to enable Sun to build substantial value on top of and

24 ⁴ In *McFarling*, Monsanto customarily charged a \$6.50 license for each bag of Round-up Ready
 25 soybean seeds, but its license forbade farmers from saving and replanting seeds. Instead, the standard
 26 license required farmers in succeeding years to purchase additional seed from authorized distributor
 27 seed companies, which were also Monsanto licensees. The seed companies then paid Monsanto an
 28 additional royalty, which amounted to another \$19 to \$22. 488 F.3d at 979–80. The Federal Circuit
 held that a reasonable royalty could not be limited to the customary \$6.50, because such a license and
 royalty would deprive Monsanto of the benefits (including non-monetary benefits) of its "reasonable
 commercial strategy" of having seed companies cooperate to promote Monsanto's product and control
 its distribution. *Id.* at 980–81 (affirming jury verdict awarding royalty of \$40 per bag of seed).

1 alongside a jointly controlled and compatible Android – would be inconsistent with the facts and
 2 exclude significant elements of value from the reasonable royalty. As the Court has previously noted,
 3 should the jury find that Google’s actual infringement was incompatible and caused fragmentation, any
 4 “ceiling” should be adjusted upward from the starting point. (Dkt. No. 230 at 8–9; Dkt. No. 642 at 5–
 5 6.)

6 Both parties should be free to cite the 2006 negotiations to the jury. *See Univ. of Colorado*
 7 *Found., Inc. v. Am. Cyanamid Co.*, 216 F. Supp. 2d 1188, 1197 (D. Colo. 2002) (“A hypothetical
 8 negotiation should take into account the actual facts as they occurred in the matter both before and after
 9 the hypothetical negotiations would occur.”), *aff’d*, 342 F.3d 1298 (Fed. Cir. 2003). If either party
 10 chooses to do so, it must explain any adjustments, including apportionment, necessary to make those
 11 2006 discussions sufficiently comparable to Google’s actual infringement to inform the hypothetical
 12 negotiation. *Lucent*, 580 F.3d at 1327–28 (requiring that party citing other license agreements to
 13 support hypothetical royalty demonstrate how those other agreements are comparable).

14 The license fees discussed in the 2006 negotiation should not, however, be used as an absolute
 15 cap on the total value of the hypothetical license. In *Finjan*, for example, the court rejected the
 16 defendant’s argument that the jury had erred when it awarded damages of \$9.18 million for
 17 infringement of just three of its patents. On appeal, the defendant objected that the verdict was
 18 improper because the plaintiff had previously licensed its entire patent portfolio to Microsoft for only
 19 \$8 million. *Finjan*, 626 F.3d at 1211–12. The Federal Circuit rejected defendant’s argument,
 20 commenting that the plaintiff had appropriately “noted multiple differences” between the portfolio
 21 license and the hypothetical negotiation, including differences in the competitive relationship between
 22 the parties and the fact that the plaintiff had received “significant intangible value” from the portfolio
 23 license. *Id.*

24 **III. CONCLUSION**

25 For the reasons stated in response to the tentative order and during argument on December 21,
 26 2011, Oracle respectfully contends that Prof. Cockburn’s existing analysis is sound in its entirety,
 27 satisfying the level of precision and scientific rigor required by the appellate courts. *Ruiz-Troche v.*
 28 *Pepsi Cola of Puerto Rico Bottling Co.*, 161 F.3d 77, 86 (1st Cir. 1998) (district court should not apply

“a standard of scientific certainty to the . . . testimony beyond that which *Daubert* envisions,” which turned his role from “that of gatekeeper to that of armed guard”).

Nonetheless, Prof. Cockburn could, based on analysis already included in his expert report, estimate reasonable royalties for the patents and copyrights in suit using the Alternate Approach, applied as described above. Indeed, Oracle believes that the Alternate Approach provides a useful framework for the jury’s assessment of a reasonable royalty in this case. Presenting and analyzing the evidence of the overall incremental value provided by the specific patents and copyrights in suit, consistent with the infringer’s expectations at the time infringement began and informed by the contemporaneous evidence viewed as a whole, is a sensible method of approaching the award of a reasonable royalty. However, the Alternate Approach would not comply with appellate law on reasonable royalty damages if applied in a manner that would (1) require that Oracle value all “know how inputs” to specific features of Android enhanced by the infringement, where Oracle has already isolated the incremental benefit of the patents and copyrights in suit; or (2) render irrelevant the parties’ 2006 negotiations except to the extent that Google can use them to argue that the 2006 offer represents the upper bound of any royalty.

Dated: January 5, 2012

BOIES, SCHILLER & FLEXNER LLP

By: /s/ Steven C. Holtzman
Steven C. Holtzman

Attorneys for Plaintiff
ORACLE AMERICA, INC.